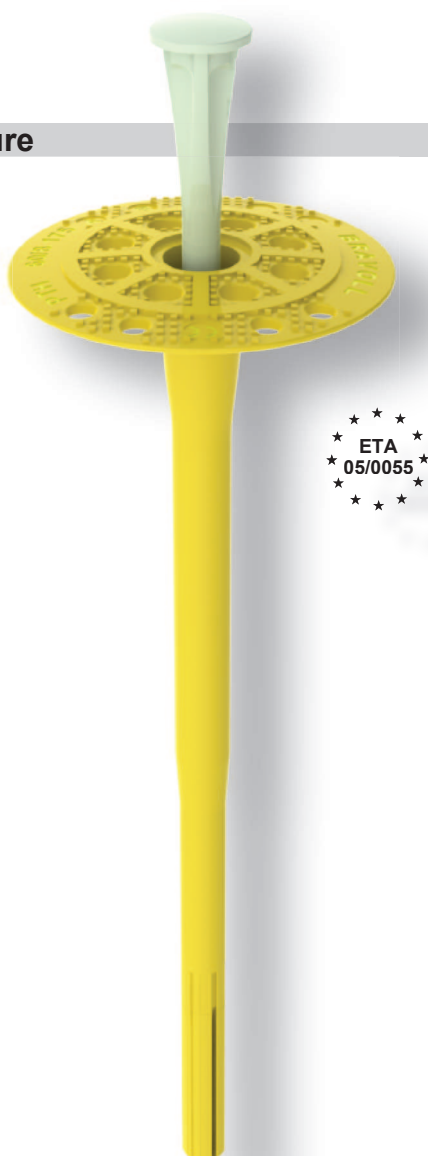


**BRAVOLL® PTH 60/8****Picture****Description**

Hammer-in plastic anchor with plastic pin for fixing expanded polystyrene (EPS) insulation boards on external wall insulation systems (ETICS).

**Technical data**

European technical approval:	ETA 05/0055
Technical guidelines:	ETAG 014
Use categories acc. to ETAG 014:	A - B
Washer diameter $d_p$ :	60 mm
Drilling diameter $d_o$ :	8 mm
Minimum embedment $h_{nom}$ :	35 mm
Maximum embedment $h_{max}$ :	70 mm
Minimum drilling depth $h_1$ :	$h_{nom} + 10 - 15$ mm
Point thermal transmission $\chi$ :	0.000 W/K
Anchor plate stiffness:	0.6 kN/mm
Anchor plate load resistance:	1.63 kN
Anchor body material:	shock-resistant polypropylene
Expansion nail material:	glass reinforced polyamide

**Features**

- economical
- optimum embedment depth
- high pull-out values
- no thermal transmission
- quick and easy installation
- special plate surface for optimum render adhesion
- premounted anchor

Anchor type BRAVOLL®	Code	Total length L <sub>a</sub> (mm)	max. insulation thickness h <sub>D</sub> (mm)	max. insulation thickness h <sub>D</sub> (mm)	Quantity per carton (pcs)
			new <sup>1)</sup>	renovation <sup>2)</sup>	
Base material categories:			A - B		
PTH 60/8-95	10322	95	50	30	200
PTH 60/8-115	10323	115	70	50	200
PTH 60/8-135	10324	135	90	70	200
PTH 60/8-155	10325	155	110	90	200
PTH 60/8-175	10326	175	130	110	200

<sup>1)</sup> For 35 mm embedment and 10 mm of glue (a2)

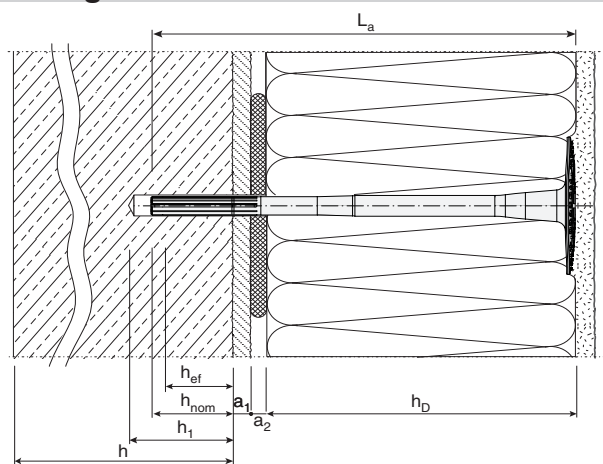
<sup>2)</sup> For 35 mm embedment, 20 mm old render (a1) and 10 mm of glue (a2)

## Technical data

Anchor type BRAVOLL®	PTH 60/8
Base material	characteristical resistance $N_{RK}$ (kN)
Concrete C 12/15 according to EN 206-1	0.6
Concrete C 16/20 - C 50/60 according to EN 206-1	0.9
Solid bricks according to EN 771-1	0.9
Minimum edge distance $c_{min}$ (mm)	100
Minimum spacing $s_{min}$ (mm)	100
Minimum thickness of member $h$ (mm)	100

\*) Based on the national safety coefficient  $\gamma_M = 3.0$

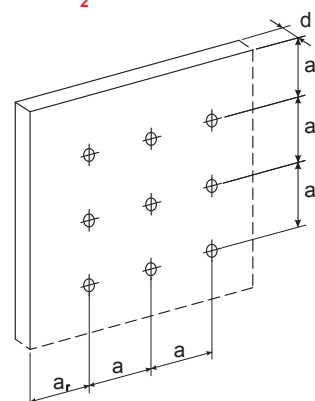
## Drawing



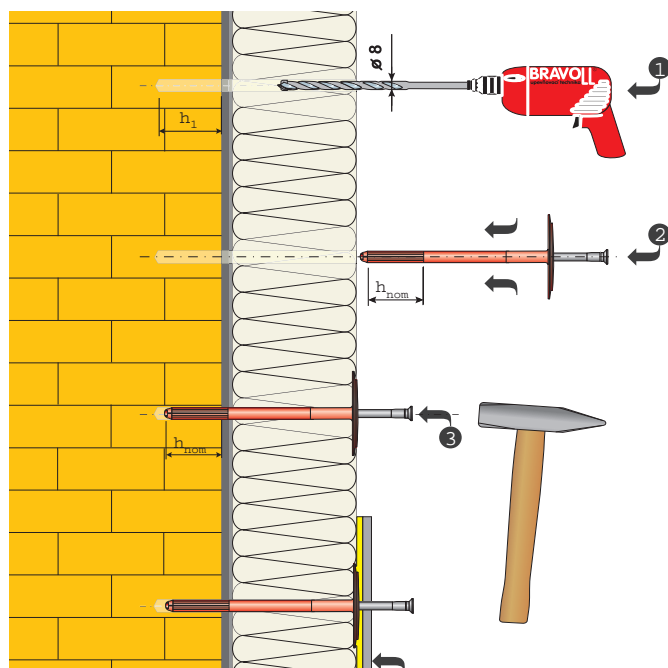
## Anchor length calculation

$$L_a \geq h_D + h_{nom} + \max a_1, a_2$$

- $d_p$  - washer diameter
- $L_a$  - anchor length
- $h_D$  - insulation material thickness
- $h_{nom}$  - minimum embedment
- $h_{ef}$  - effective embedment depth
- $h_1$  - minimum drilling depth
- $a_1$  - render thickness
- $a_2$  - Gluing mortar thickness + facade surface flatness tolerance



## Installation



- Drill a hole through the insulation board with the right diameter.
- Insert the anchor into the hole with the anchor plate flush in contact with the insulation material. Slightly hammer the anchor plate surface in order to push it between 0 and 2mm under the insulation material surface.
- If the anchor setting is difficult, it probably means that the used drill bit is worn (the drilled diameter is too small or the dust remains inside the hole). It is then necessary to use a new drill bit or better clean the hole.
- Hammer the head of the steel nail until it becomes flush with the anchor plate.
- An 800g hammer is recommended to perform an optimal installation.
- Within 6 weeks the anchors should be covered by the other ETICS components (for UV protection).
- Installation must be done at a temperature  $>0^\circ\text{C}$ .